

(b) Amendments to the Claims:

A detailed listing of the claims is provided.

1. (Currently Amended) A deposited-film formation process in which a source gas is fed into a discharge space of a reactor, a plurality of discharge means are disposed in the reactor and an electric power is applied to generate discharge in the discharge space to decompose the source gas, thereby forming a deposited film on a beltlike substrate, the beltlike substrate subject to temperature rise above a preset temperature which reduces performance of the deposited film, including photoelectric conversion efficiency, the process comprising continuously transporting the beltlike substrate through the reactor during the film formation and having;

a first step of applying an electric power to a first discharge means opposed to the beltlike substrate to generate a first discharge plasma to form a first layer of the deposited film; and

a second step of applying an electric power to a second discharge means opposed to the beltlike substrate to generate a second discharge plasma to form a second layer of the deposited film, said first and second discharge means each being electrodes connected to an RF power source;

said first step and said second step being switched from one to another when film formation temperature is above the preset temperature such that the deposited film is successively formed on the continuously moving substrate, wherein the first and the second layers of the deposited film are each identical semiconductor layers formed from the same constituents and having the same conductivity type, and the second layer of the deposited film formed through said second step is at a position on the beltlike substrate different from a position of the first layer of the deposited film formed through said first step and wherein a temperature of the beltlike substrate prior to exposure to one of the first or second discharge plasmas is less than a temperature of the beltlike substrate after exposure to the other of the first or second discharge plasmas.

2. (Currently Amended) A deposited-film formation process in which a source gas is fed into a discharge space of a reactor, a plurality of discharge means are disposed in the reactor and an electric power is applied to generate discharge in the discharge space to decompose the source gas, thereby forming a deposited film on a beltlike substrate, the beltlike substrate subject to temperature rise above a preset temperature which reduces performance of the deposited film, including photoelectric conversion efficiency, the process comprising continuously transporting the beltlike substrate through the reactor during the film formation and having:

a first step of applying to a first discharge means opposed to the beltlike substrate an electric power larger than that for a second discharge means to generate a first discharge plasma to form a first layer of the deposited film; and

a second step of applying to the second discharge means opposed to the beltlike substrate an electric power larger than that for the first discharge means to generate a second discharge plasma to form a second layer of the deposited film, said first and second discharge means each being electrodes connected to an RF power source;

said first step and said second step being switched from one to another when film formation temperature is above the preset temperature such that the deposited film is successively formed on the continuously moving substrate, wherein the first and second layers of the deposited film are each identical semiconductor layers formed from the same constituents and having the same conductivity type, and the second layer of the deposited film formed through said second step is at a position on the beltlike substrate different from a position of the first layer of the deposited film formed through said first step and wherein a temperature of the beltlike substrate prior to exposure to one of the first or second discharge plasmas is less than a temperature of the beltlike substrate after exposure to the other of the first or second discharge plasmas.

3. (Currently Amended) A deposited-film formation process in which a source gas is fed into a discharge space of a reactor, a plurality of discharge means are disposed in the reactor and an electric power is applied to generate discharge in the discharge space to decompose the source gas, thereby forming a deposited film on a

beltlike substrate, the beltlike substrate subject to temperature rise above a preset temperature which reduces performance of the deposited film, including photoelectric conversion efficiency, the process comprising continuously transporting the beltlike substrate through the reactor during the film formation and having:

a first step of applying an electric power to a first discharge means opposed to the beltlike substrate in a first reactor to generate a first discharge plasma to form a first layer of the deposited film; and

a second step of applying an electric power to a second discharge means opposed to the beltlike substrate in a second reactor to generate a second discharge plasma to form a second layer of the deposited film, said first and second discharge means each being electrodes connected to an RF power source;

said first step and said second step being switched from one to another when film formation temperature is above the preset temperature such that the deposited film is successively formed on the continuously moving substrate wherein the first and second layers of the deposited film are each identical semiconductor layers formed from the same constituents and having the same conductivity type, and the second layer of the deposited film formed through said second step is at a position on the beltlike substrate different from a position of the first layer of the deposited film formed through said first step and wherein a temperature of the beltlike substrate prior to exposure to one of the first or second discharge plasmas is less than a temperature of the beltlike substrate after exposure to the other of the first or second discharge plasmas.

4. (Currently Amended) A deposited-film formation process in which a source gas is fed into a discharge space of a reactor, a plurality of discharge means are disposed in the reactor and an electric power is applied to generate discharge in the discharge space to decompose the source gas, thereby forming a deposited film on a beltlike substrate, the beltlike substrate subject to temperature rise above a preset temperature which reduces performance of the deposited film, including photoelectric conversion efficiency, the process comprising continuously transporting the beltlike substrate through the reactor during the film formation and having:

a first step of applying to a first discharge means opposed to the beltlike substrate in a first reactor an electric power larger than that for a second discharge means opposed to the beltlike substrate in a second reactor to generate a first discharge plasma to form a first layer of the deposited film; and

a second step of applying to the second discharge means in the second reactor an electric power larger than that for the first discharge means in the first reactor to generate a second discharge plasma to form a second layer of the deposited film, said first and second discharge means each being electrodes connected to an RF power source;

said first step and said second step being switched from one to another when film formation temperature is above the preset temperature such that the deposited film is successively formed on the continuously moving substrate wherein the first and second layers of the deposited film are each identical semiconductor layers formed from the same constituents and having the same conductivity type, and the second layer of deposited film formed through said second step is at a position on the beltlike substrate different from a position of the first layer of the deposited film formed through said first step and wherein a temperature of the beltlike substrate prior to exposure to one of the first or second discharge plasmas is less than a temperature of the beltlike substrate after exposure to the other of the first or second discharge plasmas.

5. (Original) The deposited-film formation process according to claim 2, wherein in the first step the electric power is applied to the second discharge means to generate discharge to an extent that does not affect the film formation, and in the second step the electric power is applied to the first discharge means to generate discharge to an extent that does not affect the film formation.

6. (Original) The deposited-film formation process according to claim 1, wherein the first step and the second step are switched from one to another on the basis of a film formation temperature that has reached a temperature within a temperature range set beforehand.

7. (Original) The deposited-film formation process according to claim 1, wherein said first step and said second step are switched from one to another on the basis of a self-bias voltage that has reached a voltage within a voltage range set beforehand.

8. (Original) The deposited-film formation process according to claim 1, wherein said first step and said second step are switched from one to another on the basis of a self-bias electric current that has reached an electric current within an electric-current range set beforehand.

9. (Original) The deposited-film formation process according to claim 1, wherein said first step and said second step are switched from one to another within a film formation time range set beforehand.

10. (Original) The deposited-film formation process according to claim 1, wherein said first and second discharge means are controlled within a stated temperature range.

11. (Original) The deposited-film formation process according to claim 1, which comprises a step of keeping the electric power applied to said first discharge means and said second discharge means to generate discharge through the respective discharge means when said first step and said second step are switched from one to another.

12. (Original) The deposited-film formation process according to claim 1, wherein, when said first step and said second step are switched from one to another, the electric power for said first discharge means is gradually decreased or increased and the electric power for said second discharge means is gradually increased or decreased.

13. (Cancelled)

14. (Original) The deposited-film formation process according to claim 1, wherein a distance between said first and second discharge means and a substrate on which the deposited films are formed is in the range of from 5 mm to 50 mm, and a pressure at which the deposited films are formed is in the range of from 10 Pa to 800 Pa.

15-25. (Cancelled).